Benzophenone, 4-hexadecyloxy-2-hydroxy-

Inchi: InChI=1S/C29H42O3/c1-2-3-4-5-6-7-8-9-10-11-12-13-14-18-23-32-26-21-22-27(28(30)24
InchiKey: CSGHZFMNVVSDIF-UHFFFAOYSA-N
Formula: C29H42O3
SMILES: CCCCCCCCCCCCCCCCOc1ccc(C(=O)c2ccccc2)c(O)c1
Mol. weight [g/mol]: 438.64
CAS: 3457-17-8

Physical Properties

Property code	Value	Unit	Source
gf	19.95	kJ/mol	Joback Method
hf	-602.41	kJ/mol	Joback Method
hfus	67.13	kJ/mol	Joback Method
hvap	107.53	kJ/mol	Joback Method
log10ws	-9.38		Crippen Method
logp	8.483		Crippen Method
mcvol	385.260	ml/mol	McGowan Method
pc	1001.44	kPa	Joback Method
tb	1078.17	K	Joback Method
tc	1320.43	K	Joback Method
tf	665.83	K	Joback Method
vc	1.433	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	1345.44	J/mol×K	1078.17	Joback Method
cpg	1435.84	J/mol×K	1280.06	Joback Method
cpg	1418.61	J/mol×K	1239.68	Joback Method
cpg	1401.13	J/mol×K	1199.30	Joback Method
cpg	1383.22	J/mol×K	1158.92	Joback Method
cpg	1364.72	J/mol×K	1118.55	Joback Method
cpg	1452.97	J/mol×K	1320.43	Joback Method
dvisc	0.0000006	Pa×s	1078.17	Joback Method
dvisc	0.0000009	Pa×s	1009.45	Joback Method

dvisc	0.0000013	Pa×s	940.72	Joback Method
dvisc	0.0000022	Pa×s	872.00	Joback Method
dvisc	0.0000039	Pa×s	803.28	Joback Method
dvisc	0.0000078	Pa×s	734.55	Joback Method
dvisc	0.0000180	Pa×s	665.83	Joback Method

Sources

McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C3457178&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws
Joback Method:	https://en.wikipedia.org/wiki/Joback_method

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume